Re: Draft Smurfit-Stone Mill Preliminary Assessment report
Jeff_Miller
to:
Peter Nielsen
08/18/2011 10:15 AM
Cc:
Robert Parker, Joyce Ackerman
Hide Details
From: Jeff_Miller@URSCorp.com

To: "Peter Nielsen" <pnielsen@co.missoula.mt.us>

Cc: Robert Parker/R8/USEPA/US@EPA, Joyce Ackerman/R8/USEPA/US@EPA

1 Attachment

tissue sampling report USGS.pdf

Hi Peter,
Many thanks for your review, comments and the additional references. I will incorporate them as appropriate into the Final PA report, which I should have completed in mid-September, once others comments have been received.

I note your particular comments re containment of ponds (i.e. levees) and the potential for PCBs in various locations across the site. I will incorporate the PCB info into the draft sampling plan which I am also hoping to have completed by mid-Sept.

I incorporated fish tissue sampling results from an earlier USGS study (Water Resources Investigation Report 98-4254, 1999) in Section 4.3 (page 22) of the draft PA (listing the primary reference (EPA 1992) from that report in the PA), but the two subsequent USGS reports you supplied will help to bolster the earlier data. I've attached the earlier USGS report for your records.

Thanks again. Your assistance has been invaluable to this investigation.
Jeff Miller - Senior Environmental Scientist
URS Operating Services, Denver, CO
303-291-8212 office - direct

720-810-0790 - cell

-----"Peter Nielsen" <pnielsen@co.missoula.mt.us> wrote: -----

To: "Robert Parker" <Parker.Robert@epamail.epa.gov>, <Jeff_Miller@URSCorp.com>
From: "Peter Nielsen" <pnielsen@co.missoula.mt.us>
Date: 08/10/2011 04:19PM
cc: <ackerman.joyce@epamail.epa.gov>
Subject: Re: Draft Smurfit-Stone Mill Preliminary Assessment report

Jeff - thanks for sending the draft preliminary assessment. I think you have done a really nice job summarizing the site history, and the preliminary pathway analysis. I assume that this will be sufficient to justify proceeding to the next phase of site inspection work.

I would like to offer the following comments that may help bolster the description of contaminants of concern, contaminants sources and the surface water pathway.

1. Section 4.1.1 Sludge Ponds, page 13. This section describes the sludge ponds and potential contaminants of concern. While several chlorinated dioxins and furans are appropriately mentioned as potential contaminants, PCB's are not listed in this section. The ponds have been used since about 1970. The wastewater system has received releases of hydraulic oils over the years, and from until about 1979 hydraulic oils used in heavy industrial equipment such as that employed at the paper mill contained PCB's. These contaminants have a high affinity for soil absorption, and are likely to be present in sludge if the hydraulic oils used at the mill contained them.

I have attached some references regarding PCB's in hydraulic oil. The document labeled "SourcePCBs" was prepared by the Oregon Department of Environmental Quality. According to a reference cited in this report, approximately 10% of the PCBs in the US were used in hydraulic oils and lubricants, including those used in industrial equipment and machinery. Wastewater effluent from pulp and paper mills are listed as a source of PCBs in Table 3. Various Arochlor products are listed as being used in hydraulic oils. Arochlor 1254 is the PCB found recently at the Stimson mill cooling pond upstream of Missoula, associated with hydraulic oil releases at the site.

The ATSDR document attached also identifies PCBs as a contaminant in certain hydraulic fluids.

The document labeled Chapter 4 EPAmanuai identifies hydraulic oil as a potential source of PCBS to be considered in site inspections.

Section 4.1.3 Aeration Basins, Polishing Ponds and Wastewater Ponds. As described in this section the aeration basins were installed in the early 1970s. It is worth noting that the first wastewater ponds were installed at the mill in 1958. As a result, from 1958 to about 1970 the wastewater ponds received untreated effluent, and from 1970 until about 1974 the ponds received only primary treated effluent. The mill bleached paper for most of these years, and the bleach production was a high percentage of total mill output until the installation of new paper machines in the 1970s. As a result, the ponds received untreated or primary treated effluent from a bleached paper mill for many years. This history supports the evaluation of the potential presence of bleach mill contaminants in the wastewater storage ponds, in addition to the sludge ponds, aeration basins, polishing ponds and emergency spill ponds. It also supports the evaluation of the presence of PCBs, which may have been discharged in wastewater to the ponds associated with hydraulic oil releases.

Section 4.1.5 Industrial Area (Recaust area, liquor alley, bleach plant, truck and hog fuel loading area, sewer sumps. Because heavy hydraulic equipment was used in the bleach plant, where the baler press was located, and in the hog fuels loading areas, the potential presence of PCBs

associated with hydraulic oil releases should be evaluated at these locations.

Section 4.1.6 Landfarm area. This site likely was used to dispose of petroleum contaminated soils associated with hydraulic oils, which supports the investigation of PCBs in soils at the ste.

Section 4.3 Surface water pathway. It should be noted that the Clark Fork River is closely tied to downstream alluvial aquifers, and downstream groundwater supplies may be under the direct influence of surface waters. Thus, the surface water targets identified on page 22, paragraph 4 should include not only downstream sensitive environments but also downstream groundwater aquifers associated with surface water. Paragraph 5 correctly states that much of the site is within the FEMA floodplain. The sludge ponds, landfills and other portions of the mill wastewater treatment system are located directly adjacent to the floodplain. These disposal areas contain wastes that were buried below flood elevation, at times directly in groundwater. And, importantly, the disposal areas are not protected from floods by engineered dikes or levees certified by the Army Corps, State of Montana or any other entity, and that are not designed or constructed to provide any specified level of flood protection. There is no assurance that these dikes will be maintained in perpetuity by future landowners now that the mill has been shut down and sold. The property sales agreement apparently contains a provision preventing it from ever being operated as a pulp mill in the future, and the wastewater and landfill systems at eh site will not be operated or maintained for such industrial use. Thus, the contaminants in the disposal areas may be subject to erosion during a flood or ice jam event of sufficient magnitude that may breach the dikes. This could cause a large scale release of contaminated material downstream potentially affecting downstream sensitive environments or drinking water supplies.

Thanks for allowing me to review this draft and I hope my comments are helpful.

By the way, I had previously mentioned to you a couple of USGS reports on streambed sediments and biological samples in the Clark Fork River basin. I don't know if you have been able to obtain those reports. I have attached copies of selected pages of data from the two reports. The first is labeled USGS 03_292. The Clark Fork at St. Regis is the site downstream of the Frenchtown paper mill, and it is identified as site number 9. Of particular interest is the finding of 220 ug/kg PCBs in fish tissue at this site. The second report is labeled USGS 02_336. The Clark Fork at St. Regis is site number 6 in this report. A number of contaminants were detected in sediments at this site, but the levels of p-cresol and phenol were particularly elevated.

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>>> <Jeff_Miller@URSCorp.com> 8/3/2011 4:03 PM >>>
Hi Rob,

Please find attached a copy of the draft Preliminary Assessment Report for the Smurfit-Stone Mill, near Missoula, Montana.

This document is submitted for your review and comment.

Please contact me with any questions or concerns.

Sincerely,
Jeff

Jeff Miller - Senior Environmental Scientist
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[attachment "SourcePCBs.pdf" removed by Jeff Miller/Denver/URSCorp]
[attachment "ATSDR.pdf" removed by Jeff Miller/Denver/URSCorp]
[attachment "chapter4_EPAmanual.pdf" removed by Jeff Miller/Denver/URSCorp]
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